THE TAYLOR WHITE PROCESS FOR TOOL STEEL.

THE Bethlehem Steel Company on July 31 gave to invited guests a demonstration of the new Taylor-White process for tool steel, a development in metallurgy of scarcely less interest to the economist than to engineers. This process — the details of which are kept secret — was the discovery of Mr. F. W. Taylor and Mr. Maunsel White, engineers connected with the Bethlehem Steel Company. The records made by use of this process seem almost incredible. The cutting speed has been raised from 8 feet 11 inches to 25 feet 3 inches, the weight of metal removed in the hour from 31.18 pounds to 137.3 pounds. Comparative tests were made in presence of the guests. In one instance the new steel worked without damage for 15 minutes on metal which destroyed a similar tool made of Mushet steel in 22 seconds. Exhibition was given of a tool working until its point was heated to a visible red, yet without damage to the tool. On the same work an ordinary tool was destroyed in six seconds. Such achievements need no further comment from the technical point of view.

Economically, it seems that the owners of the Taylor-White process are justified in applying to it the much overworked term "revolutionary." So widespread is the application of machine tools that every industry may feel the effect of this invention. Already for some time English engineers have regretfully acknowledged the technical superiority of American machine shops. Competition seems likely to succeed most along this line, and the new discovery is at once evidence of American progressiveness and earnest of increased competitive powers.

An interesting side light is thrown on modern methods of industry by the action of the Bethlehem Steel Company in regard to this discovery. No attempt was made to exploit the invention until it had been used for nearly two years in the shops of the company. During all this time no account of its successful working appeared in the technical press although it was known that the new process was in use. The company states that over 200 tons of steel forgings have been cut up in turnings and over $100,000 spent in labor and material during this experimental stage, but not until its success was established beyond a doubt was it announced to the public or efforts made to realize on the investment. The company now proposes to sell the right to apply the process to machine shops, the purchaser to use it only on his own tools, not producing them for the market; and further

binding himself to keep the process secret. It will be of interest to see how long such a course will be effective in maintaining the secret, and whether imitators will succeed in competing with the inventors.

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DEFEAT OF THE BINDING-TWINE TRUST IN KANSAS.

THE People's Party of Kansas, in August, adopted a platform which says, among other things, that "we point with gratification to the erection of a plant for the manufacture of binding-twine by the state, which has checked the extortions of one monopoly by compelling it to reduce its prices, and has already saved thousands of dollars to the farmers of Kansas."

Hostilities in the Philippines reduced the supply of hemp almost simultaneously with the formation of the trust in this country. The result was a very high price at harvest time for the twine, exceeding by nearly 90 per cent. that paid at many times in the last decade. In Kansas, however, a plant at the State Penitentiary has succeeded in reducing trust prices nearly 40 per cent., the cost of the raw material preventing further reductions.

In carrying out this policy the state authorities found their chief obstacle in the fear that trust agents would buy up the output and sell it with other twine. To overcome this, a simple expedient was adopted, and it succeeded. Every farmer desiring twine sent an order to the factory, stating how much he would need, agreeing to pay transportation charges, and certifying that the amount ordered was for his personal use. As the season advanced, a more open policy was pursued, which finally put the product on sale with the regular dealers.

The trust at last met the state prices in Kansas, and only the crop failure in the Northwest prevented a similar contest there. A surplus remains at the factory. It seems probable that next harvest will bring a repetition of this year's experience.

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